Amendments to Claims

1. (Currently amended) An aromatic polyester polyol having an acid number below 3.0 mg/KOH/g, wherein said aromatic polyester polyol is the reaction product of a reaction mixture comprising:

(a) an acid component;

(b) a glycol component; and

(c) a urethane catalytic activity agent that comprises a metal esterification catalyst which comprises an organic or inorganic salt of, coordination complexes of or organometallic derivatives of bismuth, lead, tin, titanium, iron, antimony, uranium, cadmium, cobalt, thorium, aluminum, mercury, zinc, nickel, cerium, molybdenum, vanadium, copper, manganese, titanium, or zirconium, and a non-alkoxylated aminoalcohol

wherein:

(i) said aromatic polyester polyol has a polyurethane foam reaction polymerization rate in an HCFC-141b blown system that is increased at least 367% by the presence of said urethane catalytic activity agent;

(ii) said aromatic polyester polyol has a polyurethane foam reaction polymerization rate in a water/hydrocarbon co-blown system that is increased at least 295% by the presence of said urethane catalytic activity agent; or

(iii) said aromatic polyester polyol has a polyurethane foam reaction polymerization rate in a water blown system that is increased by the presence of said urethane catalytic activity agent.

2. (Original) The aromatic polyester polyol of claim 1 that has an average hydroxyl functionality less than 4.0.

3. (Original) The aromatic polyester polyol of claim 1 that has a polyurethane foam reaction polymerization rate that is increased by at least 50% by the presence of said urethane catalytic activity agent.

4. (Currently amended) The aromatic polyester polyol of claim 1 wherein said non-alkoxylated aminoalcohol is a non-alkoxylated tertiary aminoalcohol and wherein said metal esterification catalyst comprises manganese acetate, antimony oxide, lead oxide, tin chloride, tin oxide, a titanate, or a combination thereof.

5. (Canceled)

6. (Currently amended) A blend comprising (i) one or more blowing agents, surfactants, catalysts, or a combination thereof and (ii) the aromatic polyester polyol of claim ~~1~~ 4.

7-9. (Canceled)

10. (Previously presented) The aromatic polyester polyol of claim 1 wherein said polyurethane foam reaction polymerization rate is increased at least 400% by the presence of said urethane catalytic activity agent.

11. (Canceled)

12. (Currently amended) The aromatic polyester polyol of claim ~~1~~ 4 that has an average hydroxyl functionality of at least 2.0.

13. (Currently amended) A blend comprising (i) one or more blowing agents, surfactants, catalysts, or a combination thereof and (ii) the aromatic polyester polyol of claim ~~1~~ 4.

14-16. (Canceled)

17. (Currently amended) A process for producing an aromatic polyester polyol having an acid number below 3.0 mg/KOH/g, comprising reacting, at a temperature greater than 150 °C, a reaction mixture comprising:

(a) an acid component;

(b) a glycol component; and

(c) an urethane catalytic activity agent comprising a non-alkoxylated aminoalcohol and a metal esterification catalyst which comprises an organic or inorganic salt of, coordination complexes of or organometallic derivatives of

bismuth, lead, tin, titanium, iron, antimony, uranium, cadmium, cobalt, thorium, aluminum, mercury, zinc, nickel, cerium, molybdenum, vanadium, copper, manganese, titanium, or zirconium,

wherein:

(i) said aromatic polyester polyol has a polyurethane foam reaction polymerization rate in an HCFC-141b blown system that is increased at least 367% by the presence of said urethane catalytic activity agent;

(ii) said aromatic polyester polyol has a polyurethane foam reaction polymerization rate in a water/hydrocarbon co-blown system that is increased at least 295% by the presence of said urethane catalytic activity agent; or

(iii) said aromatic polyester polyol has a polyurethane foam reaction polymerization rate in a water blown system that is increased by the presence of said urethane catalytic activity agent.

18. (Previously presented) The process of claim 17 wherein said acid component comprises at least one of (a) ester-containing by-products from the manufacture of dimethyl terephthalate, (b) scrap polyalkylene terephthalates, (c) phthalic anhydride, (d) residues from the manufacture of phthalic anhydride, (e) terephthalic acid, (f) residues from the manufacture of terephthalic acid, (g) isophthalic acid, (h) trimellitic anhydride and residue from the manufacture of, (i) aliphatic polybasic acids or esters derived therefrom, and (j) by-products from the manufacture of polyalkylene terephthalate.

19. (Previously presented) The process of claim 17 wherein said glycol comprises ethylene glycol, propylene glycol, diethylene glycol, triethylene glycol, polyethylene glycol, dipropylene glycol, or a mixture thereof.

20. (Previously presented) The process of claim 17 wherein said reacting comprises:

(i) an initial reaction at a pressure from 560 mmHg to atmospheric pressure; and

(ii) a completion reaction at a vacuum pressure of 50 to 200 mmHg or an azeotrope distillation using cyclohexane.

21. (Previously presented) The process of claim 17 wherein said metal esterification catalyst comprises manganese acetate, antimony oxide, lead oxide, tin chloride, tin oxide, a titanate, or a combination thereof.

22. (Currently amended) The process of claim ~~17~~ 21 wherein said non-alkoxylated aminoalcohol is a non-alkoxylated tertiary aminoalcohol.

23. (Original) The process of claim 22 wherein said non-alkoxylated tertiary aminoalcohol is triethanolamine.

24. (Currently amended) The process of claim ~~17~~ 21 wherein said reaction mixture further comprises a functionality enhancing component having a hydroxyl equivalent weight of 15 to 70.

25. (Original) The process of claim 24 wherein said functionality enhancing component comprises a non-alkoxylated glycerol, pentaerythritol, α-methylglucoside, sucrose, sorbitol, tri-methylolpropane, trimethylolethane, a tertiary aminoalcohol, or a mixture thereof.

26-29. (Canceled)